



Aalborg Universitet

AALBORG UNIVERSITY  
DENMARK

## Simple, complex and hyper-complex understanding - enhanced sensitivity in observation of information

Bering Keiding, Tina

*Publication date:*  
2007

*Document Version*  
Publisher's PDF, also known as Version of record

[Link to publication from Aalborg University](#)

*Citation for published version (APA):*

Bering Keiding, T. (2007). *Simple, complex and hyper-complex understanding - enhanced sensitivity in observation of information*. Paper presented at Methodologies Of Systemic Theory - Empirical Research And Form Analysis 7/Methodologies Of Systemic Theory - Empirical Research And Form Analysis. [http://www.iuc.hr/k\\_detail.php?konfID=92](http://www.iuc.hr/k_detail.php?konfID=92), Dubrovnik, Croatia.

### General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal -

### Take down policy

If you believe that this document breaches copyright please contact us at [vbn@aub.aau.dk](mailto:vbn@aub.aau.dk) providing details, and we will remove access to the work immediately and investigate your claim.



# **Simple, Complex and Hypercomplex understanding**

**Tina Bering Keiding  
Department of Education, Learning and Philosophy  
Aalborg University  
[tbk@learning.aau.dk](mailto:tbk@learning.aau.dk)**

# Starting problem and aim

???

- Reading empirical studies I often wondered:
  - “*Why* is this utterance interpreted *this way* and not another?”
  - “*Why this understanding*”

## Aim

- To sketch out a suggestion to how selection of understanding can be systematized in order to
  - produce enhanced transparency in selection of understanding
  - enhanced sensitivity and definition in dept



# Where to go and point of departure

## Relevance of enhanced sensitivity and transparency in understanding

- Didaktik as reflection theory for education
  - Why is one utterance understood as learning, and another as 'not-learning'
- Research
  - Makes the research process more observable

## Premises

- Suggestions are based on interplay between
  - Understanding of Luhmanns concept of understanding
  - Empirical studies of observations of supervision
- A work in progress
- Invitation to discussion, rather than a conclusion



# Understanding and Knowledge

- Accomplish each single unit of communication
  - Determines temporarily – shorter or longer – the horizon of meaning
  - Understands communication not ‘the other’
  - I call this *simple understanding* (Verstehen in stark vereinfachter Form)

(Systeme verstehen Systeme 1986:96)

- Knowledge can be produced from first-order observations; that is from ongoing-understanding

- Scientific knowledge requires observation of *how* knowledge is produced

- Production of empirical material
- Selection of understanding



He questions them closely;  
he writes down what they remember.  
And if the geographer thinks  
that one of them remembers interesting things,  
he obtains information about their moral constitutio  
“Why”, asks The Little Prince.  
“ Because drunk people will see twice the number,  
and then the geographer would write down  
two mountains, where there are only one”

Saint-Exupery:1987:71

# Understanding information, not the informant

”Kommunikation nimmt mithin Verstehen laufend in Anspruch, aber nur in stark vereinfachter Form. Sie beobachten im Hinblick auf Selbstreferenz nur, um die Differenz von Information und Mitteilung ansetzen zu können. Man kann eine Kommunikation verstehen (einschließlich der Absicht der Mitteilung) ohne auch nur im geringsten die Person zu verstehen, die als Mitteilender beteiligt ist. Ja, die ständige Bemühung um das Verstehen der laufenden Kommunikation macht es sogar unwahrscheinlich, daß man zugleich noch mehr als dies, nämlich den Partner versteht“ (Systeme verstehen Systeme; Luhmann 1986:96).

Simple | Complex  
Form of understanding



Understanding Dubrovnik  
Tina Bering Keiding



# Complex understanding #1

- “Operations are asymmetric (or symmetry-breaking) operations. They use distinctions as forms and take forms as boundaries, separating the inner side (the *Gestalt*) and an outer side. The inner side is the indicated side, the marked side. From here one has to start the next operation. The inner side has a connective value” (Theories of Distinction; 2002:101).
- Complex understanding
  - Observes how – that is by which distinction – asymmetry has come about
  - Can be described as “... Handhabung fremder Selbstreferenz” (Systeme verstehen Systeme; Luhmann 1986:96)
  - Observes the observer; that is communication.
  - May attribute differences to the informant
    - It is nevertheless the differences of an addressee, that is an selection in communication



# Complex understanding #2

- Conditions for construction of differences are different in oral and written/fixed communication
- Oral communication
  - Uttered information is highly evanescent
  - Remembering in psychic system is all that is left for construction of differences
  - In f-2-f interaction (fx teaching) complex understanding seems to be an exception, rather than the rule; new selections must be made in order to sustain interaction
- Written communication
  - Uttered information is fixed
  - Understanding and constructed differences can be tested against text
  - More comfortable conditions for complex understanding





# Observing Observations of Supervision

Observations from a report on quality development in supervision

- 45% of the informants agree with the utterance *“Primary Supervisor has helped us to structure the project”*
- 55% of the informants agree with the utterance *“Secondary Supervisor has discussed the structure of the project with us”* (Algreen-Ussing & Hansen 2001 question 10 and 24)

**Immediate understanding:** Supervision in project competencies is ensured by the secondary supervisors rather than the main supervisors. This corresponds to conclusions in previous evaluation reports (Algreen-Ussing & Dahms (1995); KUG 1997-1999; 1999-2000)

Construction of the difference used order to describe supervision in the utterances suggests:

Utterance	Difference for form of supervision
<i>Primary Supervisor has helped us to structure the project</i> <i>Secondary Supervisor has discussed the structure of the project ...</i>	<b>Help</b> ]- <b>Discuss</b> ]-

## Complex understanding

- Makes it clear that the actual observations of the supervisors efforts are no more comparable than oranges and bananas
- Indicates that it will be easier for SS to emerge as ‘supervising in project method’ – easier to be observed as dutiful if the expectation is ‘to discuss’ rather than ‘to help’

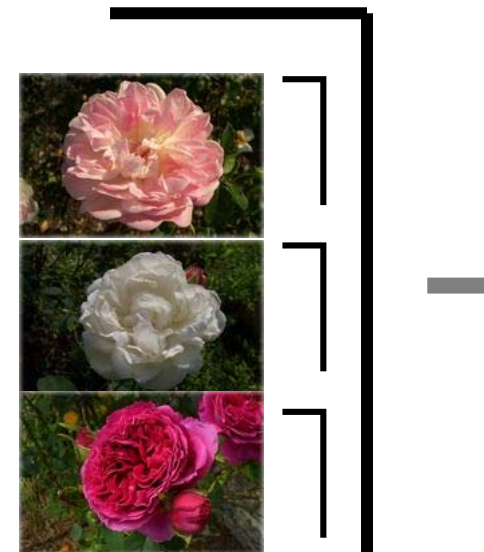
# Hypercomplex understanding

**Conditioning** delimits possible relations within the system (Luhmann 1995:133)

- Sketches out conditions for indication
  - Time perspective: Prospective
    - Makes forms operational (decision): When is a rose a rose
  - Time perspective: Retrospective
    - Suggests possible framing difference for observed observations/indications

Actualized<sub>1</sub>] Possible  
 Actualized<sub>2</sub>] Possible  
 Actualized<sub>n</sub>] Possible

**Hypercomplex understanding**



**Botanical Family** 9

# Hypercomplex understanding: Construction of active teachers and passive students

Utterance (Algreen-Ussing & Hansen 2001:28 &31)	Difference event/action	Attribution of event	Proposal to conditioning difference
<p>I have several times <i>discussed</i> the significance of a problem oriented approach...</p> <p>I have <i>helped</i> to structure the project</p> <p>I have <i>asked</i> for the time sheet for the project</p> <p>I have <i>discussed</i> methods for group work</p>	<p>Discuss ] -</p> <p>Help ] -</p> <p>Ask ] -</p> <p>Discuss ] -</p>	<p>Event attributed to observing system: <b>Supervisor</b></p>	<p><b>action</b> ] experience</p>
<p>PS have <i>discussed</i> the significance...</p> <p>PS have <i>helped</i> us to structure...</p> <p>PS have <i>asked</i> for the time sheet...</p> <p>PS have <i>discussed</i> methods ...</p>	<p>Discuss ] -</p> <p>Help ] -</p> <p>Ask ] -</p> <p>Discuss ] -</p>	<p>Event attributed to a system in the environment (supervisor) of the observing systems (student)</p>	<p><b>experience</b> ] action</p>

# Satisfied with the supervisor – but why

## Questionnaire to all students

- How satisfied are you with the supervisor regarding...

## Few interviews

- Why were you satisfied with/what was good about your supervisor:
  1. “We were satisfied with our supervisor, because he was good at answering our questions and to help us when we needed it”
  2. “We were satisfied with our supervisor, because he challenged us by giving us the responsibility for decisions and progression”. (KUG 1997-1999:10-11)

## Hypercomplex understanding

1. satisfied ] - *framed by help* ] -
2. satisfied ] - *framed by challenge* ] -

## Assumptions generated:

- Conditioning differences produce information about *expectations* to good supervising
- The actual form of the difference satisfied/unsatisfied depends not on teacher, but on students expectations
- Satisfied/unsatisfied without conditioning as in the questionnaire produces not information about quality of supervision but about fulfilled or dissapointed expectations to supervision

# Hypercomplex understanding: Construction of criteria for inclusion/exclusion in computer mediated teaching

Observations > 300 contributions

- Strong reactions on absence without previous notice: - ] + unexpected absence
  - I'M SICK AND TIRED OF....
- Encouraging responses on subject matter contributions, *disregarding* quality and quantity (even if it is: "Heeeeeelp") + ] - contributions
  - Well done, I think...
- Surprisingly high number of contributions regarding absence and feedback that accepts explanation + ] - expected absence and 'good' reasons
  - I wont be on mail until...
  - I'll work on this and send my contribution at...
  - Sorry, I have been ill...
  - I have had computer problems...

## Proposal:

- One fundamental conditioning difference for inclusion: **Observable participation** ] -
  - Only one contribution deals explicitly with this: "Please call me .... Absence caused several problems in my former group"
- Quality of contributions is – regarding this communication – not criteria for inclusion/exclusion function